

**Illinois Commerce Commission
Request for Public Comment
Sustainable Energy Plan for Illinois**

MidAmerican Energy Company Preliminary Comments

As explained on pages 3 and 4 of Attachment 1, a presentation titled “The Economics of Utility Ownership of Wind Energy Facilities,” MidAmerican Energy Company is in the process of completing 360.5 MW (with an expected accredited capacity value of 61.3 MW) of wind facilities in Iowa that it will own and operate as part of its projected 2008 regulated generation portfolio of approximately 5600 MW of accredited capacity. MidAmerican also has been purchasing 112.5 MW of wind power since 1999 pursuant to a contract that continues until 2019. In addition, MidAmerican owns or purchases another 20 MW of renewable energy produced by hydro and landfill gas facilities. MidAmerican and Interstate Power, the principal owners of Ottumwa Generating Unit 1, have also experimented with supplementing Western low-sulfur coal with switch grass at that unit. Finally, one of MidAmerican’s affiliates is one of the largest producers of geothermal energy in the world, and is in the planning process of constructing the largest single geothermal unit (215 MW) in the world in the Imperial Valley of California.

MidAmerican has offered energy efficiency programs to its 605,000 regulated electric customers and 526,000 regulated gas customers in Iowa for nearly 15 years. The annual budget for these programs exceeds \$35 million. In the early 1990s, one of MidAmerican’s predecessors discussed with the Commission voluntarily extending these programs to its 84,000 regulated electric customers and 66,000 regulated gas customers in Illinois. Commission approval was secured to offer two residential energy efficiency programs in the Illinois Quad Cities for twelve months during 1992-1993. The programs were well received by Illinois customers, and participation was high. The programs were discontinued in Illinois when Commission approval was not extended.

While MidAmerican agrees that all utilities and retail service providers¹ should consider offering renewable energy and energy efficiency programs to their customers, MidAmerican does not support state mandates, particularly state renewable portfolio standard (RPS) mandates. MidAmerican’s opposition to state RPS mandates is primarily based upon two considerations.

First, RPS mandates are generally too inflexible to permit adequate consideration of the economics to customers. The cost-effectiveness and benefits of renewable energy to customers is very utility specific. The economics to the customers will be impacted by the types of generation already in the utility’s portfolio, the operating characteristics of that generation, the dispatch order of the generation in the portfolio, the utility’s reserves,

¹ MidAmerican firmly believes that if a state imposes any service mandates upon energy utilities, those mandates should apply to all providers of the particular retail energy service. These providers would include municipal and cooperative utilities. It does not appear that the RPS and energy efficiency mandates being considered by the Commission include municipal and cooperative utilities. If the mandates are beneficial to the state and are in the public interest of consumers, there is no logical or philosophical basis for denying those benefits to consumers served by municipal and cooperative utilities.

the availability and cost of transmission, the cost of the renewable resources, and the capacity factor of the renewable facilities. Each of these factors must be modeled for the specific utility to determine what amount of renewable energy in the portfolio, if any, is cost-effective for customers. A uniform amount or percentage of renewables mandated by a legislative or regulatory body for every utility ignores consumer economics.

Second, state RPS requirements tend to restrict the renewable facilities to those located in the particular state. This is counterproductive to the development of a nationwide renewable energy market. If renewable energy facilities are ever to wean from federal tax credits (and the associated disastrous boom & bust cycles), then a robust nationwide renewable energy trading market, without state-erected market barriers, is critical. Moreover, a state RPS that restricts qualifying renewable energy to that produced within the state ignores the potential for more cost-effective renewable energy resources outside the state.

Viable – in fact, preferable – alternatives to a state RPS mandate do exist. Indeed, MidAmerican's situation is a case in point. The contract for the 112.5 MW of wind power that MidAmerican has been purchasing since 1999 only was consummated after 15 years of litigation in Iowa and at FERC. The litigation focused upon the failure of that state's RPS to consider the economic impact upon customers of the state-mandated price and service terms for the renewable energy. Ultimately, MidAmerican was provided some flexibility to mitigate the impact upon customers, but the contract prices for the renewable energy still exceed MidAmerican's avoided costs by as much as 400 percent. In contrast, the 360.5 MW wind project that MidAmerican is currently completing was accomplished **without an inflexible RPS mandate**. Instead of an RPS mandate, the state of Iowa removed impediments to utility construction or purchase of renewable energy. These barriers, which also exist in Illinois, are the least-cost standard and the uncertainty/time delay in cost recovery. To remove these barriers, Iowa (1) replaced the least-cost standard with a reasonable-cost standard and (2) provided for the determination of applicable ratemaking treatment prior to the commencement of construction (in contrast to the traditional approach still practiced in Illinois where ratemaking treatment is not determined until some time after completion of construction). These two simple actions, coupled with the development of a national renewable energy trading market unfettered by state parochialism, are much more conducive to the development of a **sustainable** renewable energy industry than state mandates.

Renewable Portfolio Standard

Renewable Energy Procurement Standard

What is the most effective way to implement these standards and attain the stated goals?

The Governor's State of the State address referenced an RPS of 3000 MW of wind. The Governor's letter to the ICC and this question reference an RPS based upon 8% of retail energy sales.

The threshold determination for the Commission is whether to establish an RPS based on megawatts or on energy sales (kilowatt hours), since the two approaches differ significantly, especially for wind power. Texas, and initially Iowa, based their respective RPS requirements on a megawatt approach. This approach is easier to administer than an energy-based RPS because both the utilities and the regulators can ascertain in advance the amount that must be constructed or purchased. A 3000 MW requirement means just that. In addition, this approach appropriately leaves operation and performance risks with the renewable energy seller.

In contrast, an RPS based on a percentage of annual energy sales creates risks and uncertainty for the utility and its customers in at least two ways. First, neither the utility nor regulators can determine in advance the amount of energy sales that will occur in a year. In fact, that amount cannot be determined until some time after the end of the year. As a result, the utility will need to find some hedge against the uncertainty of the sales volumes. That hedge will have a cost that will be borne ultimately by consumers. Second, neither the utility nor the regulators can be assured that the renewable energy sellers will deliver sufficient renewable kilowatt hours to satisfy the energy sales standard. Effectively, some portions of the seller's operation and performance risks are transferred to the utility and its customers. These risks must also be hedged (which may include seller performance and delivery requirements). These hedges also come at a cost – a cost ultimately borne by consumers.

An additional problem with an energy-based RPS is that the percentage can be misleading as to the actual amount of renewable resources needed. Due to the low capacity factor of wind, the megawatts of wind capacity needed in the total portfolio to satisfy an 8% RPS based on energy will significantly exceed 8% of the portfolio. In the case of MidAmerican, the amount of wind capacity (at a 30% capacity factor) needed to satisfy an 8% energy-based RPS would be 60 MW, which is 12% to 13% of the generation needed to serve its Illinois peak load plus reserve. Statewide, the amount of wind needed to satisfy the entire 8% RPS based on energy sales would be about 4400 MW. To achieve this amount of wind power in the state, development would need to increasingly occur at sites with less suitable wind regimes (lower capacity factors). The result would be a degradation of economics for the entire RPS mandate. Thus, a kilowatt hour RPS approach would mandate more of an uneconomical renewable resource, resulting in higher cost for consumers.

In addition to the foregoing threshold question, the Commission should address two other foundational issues. First, utilities should have the option to own, operate and construct renewable energy facilities. This option is explored later in these comments, and MidAmerican would be pleased to discuss this further with the Commission in conjunction with its presentation on that subject, which is Attachment 1 to these comments. Second, the Commission should explore alternatives to an inflexible RPS mandate, such as removal of existing statutory and regulatory barriers to renewable energy development, which are discussed in the preliminary section of these comments.

What technical issues should be addressed regarding adding renewable resources, wind resources in particular, to meet these standards within the time frame contemplated in the Plan?

The economics of wind in the Midwest is driven by four factors: (1) the cost and availability of the turbines and towers that represent about 80% of the installed cost (excluding transmission), (2) the availability of the federal production tax credit (PTC), (3) the availability of land rights for wind resources that can achieve at least a 30% annual capacity factor, and (4) the availability and proximity of transmission.

With respect to cost and availability of turbines, MidAmerican's experience indicates that 2005 turbine and tower costs are as much as 20% higher than 2004 costs. These higher costs are a result of higher steel prices, greater demand, technology enhancements and a lower valued dollar compared to the Euro. In addition, there are virtually no new turbines available for delivery in 2005 unless those turbines were under contract prior to 2005. Some turbines may become available in the primary or secondary markets if planned projects fail to proceed. The supply of turbines for delivery in 2006 also appears to be tightening. These supply uncertainties suggest that achievement of the 2% goal in 2006 using Illinois resources is unlikely, since the facilities would need to be in place by 1/1/06. More than 1000 MW of wind at a 30% annual capacity factor would need to be in place by then to enable satisfaction of a 2% RPS in 2006, if the entire 2% were to be satisfied by wind energy.

With respect to the availability of the PTC, that tax credit expires 1/1/06. MidAmerican expects that if that credit is renewed, it will likely not be passed by Congress until late in the year and may not be as robust as the expiring credit due to federal budget concerns. This uncertainty also will make it difficult to achieve a 2% RPS in 2006.

With respect to the availability of land rights for cost-effective wind resource sites, MidAmerican is aware that DOE-NREL has recently identified a limited number of wind sites in Illinois that **might** be Class 4. Although the pad for a turbine tower physically occupies less than one-half acre, each turbine requires about 40 acres of unobstructed wind resource area to avoid degradation of output and capacity factor. Optimizing output requires even more land rights. For example, MidAmerican's 360.5 MW wind farm (257 turbines) involves land rights over 25,000 acres. Extrapolating from that data, land rights for more than 300,000 acres of Class 4 wind resource would be needed to site 4400 MW of 1.5 MW turbines. Whether sufficient Class 4 resources exist in Illinois – and whether the landowners are willing to provide the requisite land rights – is uncertain at this time.

Until the wind turbine locations have been identified, it is impossible to be certain whether adequate transmission exists or can be built. Suffice it to say that lack of adequate transmission has been a critical issue in other states. In west Texas, for example, about 700 MW of wind facilities constructed in response to that state's RPS are constrained by a transmission system only capable of handling about 350 MW of output.

Finally, an additional technical issue must be considered. Wind is added to a portfolio for its energy value, not its capacity value. Wind is erratic and largely non-dispatchable. As can be seen by the graphs on pages 14 and 15 of the attached presentation, the production curve for wind in the Midwest does not correspond to the demand of consumers for energy. Indeed, the curves are often opposites. These factors suggest caution in requiring that a significant percentage of the power portfolio be comprised of non-dispatchable generation such as wind and low-head hydro until some actual operating experience has been gained. The reliability of the system may be

adversely impacted by significant levels of non-dispatchable generation in the control area, particularly at minimum load periods. Due to some unique circumstances in those countries, the purported experiences in Spain and Denmark do not provide assurance of reliability if the amount of renewables in the portfolio reach a percentage such as the 12% to 13% required to meet an 8% RPS based on energy.

How have other states implemented renewable portfolio standards? When describing other states' processes, please include any documentation, citations to web sites, expert contact information, etc., that may be useful in evaluating this information.

As noted, Iowa has tried two different approaches. The first approach in 1984 was an inflexible mandatory RPS with a specified purchase price 3 to 4 times greater than avoided cost and a mandated contract length of 33 years. That approach led to 15 years of litigation. Following the conclusion of litigation, purchase contracts were executed at a more reasonable price, but the cost to customers still resulted in rate increases for all customers between one-tenth and two-tenths of a cent per kWh. The second approach was tried in 2003. This approach consisted of a voluntary goal (rather than a mandate), coupled with the removal of regulatory and statutory barriers. The barriers removed were (1) the requirement to demonstrate that the selected type of energy (in this case, renewable energy) was "least cost" and (2) hind-sight ratemaking. A reasonable-cost standard replaced the least-cost standard, and hindsight ratemaking was replaced by a process that allows all parties, including the utility, to know in advance of construction what the ratemaking treatment for the investment will be for the life of that investment. In contrast to the litigious RPS process, the second approach used by Iowa resulted in MidAmerican announcing the construction of its initial 310.5 MW project within two months after the goal was announced, and a 50 MW expansion of the project was announced late in 2004. Alliant Energy is also implementing the voluntary Iowa goal, but in a different manner by purchasing (rather than owning and operating) several hundred megawatts of renewable energy from developers.

In Texas, the RPS is measured by capacity rather than energy. The goal is 2000 MW by 2009. Note that this is the goal in a state with peak loads significantly greater than those in Illinois and a greatly superior wind resource. Texas is considering an increase of the goal to 5000 MW by 2015.

A lesson from Texas is important. Texas attempted to implement its RPS at the same time that it was implementing restructuring changes and making changes at ERCOT. As a consequence of the workload in managing those changes, not enough attention was devoted to the transmission capacity available for delivery of new wind power facilities in west Texas. The result was the siting of about twice as much new wind facilities as could be accommodated by the existing transmission.

Eligible Renewable Energy Resources

The renewable resource types identified in the Renewable Energy, Energy Efficiency, and Coal Development Law of 1997, include "wind, solar thermal energy, photovoltaic cells and panels, dedicated crops grown for energy production

and organic waste biomass, hydropower that does not involve new construction or significant expansion of hydropower dams, and other such alternative sources of environmentally preferable energy.” For each of the above resource types, as well as for *methane recovered from landfills*, what is the current capacity and output of such resources? For each resource type, what are the currently planned expansions of such resources? For each resource type, what is the technical potential for increasing the development of such resources in Illinois? How do these levels compare to the various standards identified in the Governor’s Renewable Energy Procurement Requirement, cited above?

MidAmerican currently purchases approximately 4 MW of landfill recovery power in Illinois. MidAmerican is not aware of additional landfill recovery power available in or near its Illinois service territory.

MidAmerican does not have reliable information regarding development potential for renewable resources in Illinois.

In reference to the various standards identified in the Governor’s Renewable Energy Procurement Requirement, last fall the Environmental Protection Agency (EPA) published guidance for state regulatory agencies that explains how they may take credit for their mandatory renewables and/or energy efficiency policies within their State Implementation Plan (SIP) filings.² Several states have begun to take SIP credit for their mandatory policies, most notably Texas for the Dallas Fort Worth³ and the Metropolitan Washington (MD-DC-VA)⁴ non-attainment areas. And although the agency does not currently regulate carbon dioxide, EPA has even suggested that states use the guidance as a means to capture the value of their mandatory renewables and energy efficiency policies’ greenhouse gas emissions benefits.⁵ As recently as last month, the Department of Energy was actively promoting this approach.⁶

As Illinois prepares to revise their State Implementation Plans in 2006 and 2007 to meet the new 8-hour ozone and PM2.5 National Ambient Air Quality Standards (NAAQS), it is very plausible that the state will try to take credit for the energy efficiency measures and renewables in making their demonstration on how the NAAQS will be met. As such, the state would need to establish allowance set asides that could be awarded to the owners of the owners of the EE or renewable measures.

However, EPA in its’ guidance to the states has not restricted the location of renewables to adjacent non-attainment areas. Rather, EPA has suggested to the states that the location can be in any area that can be demonstrated to be contributing to the non-attainment situation. Therefore, it is plausible as a fallback position that the commission allow locating turbines in Iowa where the modeling demonstrates that a reduction in emissions would result in an improvement in the non-attainment situation. However, this process has many shortcomings including the ongoing requirement to demonstrate that the reductions are permanent, and accordingly, is only recommended as a secondary position should the commission follow through with the RPS.

² see, http://www.epa.gov/ttn/oarpg/t1/memoranda/ereaserem_gd.pdf

³ see, http://www.dfwcleanair.com/committees/SIP/FY04/010904_Modeling_Committee.pdf

⁴ see, <http://www.mwcog.org/uploads/committee-documents/qF1bX1420040908153814.pdf>

⁵ see, <http://www.epa.gov/globalwarming/greenhouse/greenhouse17/setaside.html>

⁶ see, http://www.eere.energy.gov/regions/southeast/pdfs/overview_of_eere_eei_effort.pdf

Competitive Procurement

How should the Commission implement this policy? Please include in your analysis how Illinois utilities and ARES should go about entering into “competitive long-term (e.g. at least ten-year) power purchase agreements” with renewable energy generators. How have other States addressed similar issues regarding the procurement of renewable resources? When describing other states’ processes, please include any documentation, citations to web sites, expert contact information, etc., that may be useful in evaluating this information.

MidAmerican has experience with both competitive procurement of renewable energy from developers/owners and utility ownership/operation of renewable facilities. Both approaches are reasonable means to achieving an RPS goal. MidAmerican recommends that the Commission allow a utility the option to construct renewable facilities that it will own and operate.

Most utilities, particularly those utilities that no longer operate generation, will probably prefer to contract to purchase renewable energy from developers. In addition to typical contract provisions, such contracts would ordinarily address at least the following issues:

- Firmness of price;
- Term of obligation and right to extend;
- Ownership of associated environmental credits;
- Ownership of associated federal renewable credits;
- Ownership of associated state renewable incentives;
- Ownership of tax or similar credits enacted after the commencement of the contract;
- Responsibility for operating risk;
- Responsibility for performance risk, including regulatory penalties; and
- Responsibility for transmission costs and transmission risk.

MidAmerican, as an owner/operator of generation, believes that its ownership and operation of renewable facilities is beneficial for its customers, and the option to own and operate renewable energy facilities should continue to be available to it in Illinois. MidAmerican and its predecessors have operated renewable facilities in Illinois since 1834, starting with rope power from a dam on Sylvan Slough in Moline, Illinois at the site of the original John Deere Moline shop.

In addition to the energy produced by the facilities, MidAmerican’s ownership and operation of wind facilities as part of its regulated generation portfolio provides customers with the following added benefits:

- The PTC can be an offset to revenue requirement.
- The revenues from the sale of renewable energy credits and environmental credits can be an offset to revenue requirement.
- State tax credits and similar credits and grants can be an offset to revenue requirement.
- Bonus depreciation (such as pre-2005 federal bonus depreciation) can be an offset to revenue requirement.

- The accredited capacity value of the wind facilities can be used to satisfy the utility's capacity reserve requirements.
- MidAmerican is in a position to better manage operational issues, such as issues associated with minimum load conditions, because, as the operator, MidAmerican can reduce the output of the wind facilities when necessary. [While the same reductions might be achievable through a contract provision with a developer/seller, that provision will have a cost. The developer/seller would be foregoing the generation of kilowatt hours for which it otherwise would have been compensated.]
- Renewable energy costs can be allocated among customer classes in the same manner as all other generation costs, rather than recovered as an incremental uniform charge per kWh consumed. The latter approach, which is often used for recovery of renewable energy purchases, disproportionately impacts large kWh users.

The Plan states “Power purchase agreements for renewable electricity procurement should be based on reasonable costs that reflect a full accounting of overall long-term benefits of renewable energy (i.e., consumer benefits of long-term fixed price contracts, environmental, economic and electric system benefits including increased fuel diversity). Recovery for renewable energy procurement will be treated as other fuels as allowed by law and consistent with this standard.” How should the Commission implement this policy? Please provide information relating to how such benefits should be accounted for, including how other states have addressed similar issues. When describing other state’s processes, please include any documentation, citations to web sites, expert contact information, etc., that may be useful in evaluating this information.

MidAmerican first notes that the question quotes the statement in the Governor’s letter referencing a “reasonable costs” standard. MidAmerican certainly agrees that reasonable cost is the preferable standard, but such standard would appear to be at odds with the least-cost standard referenced in the Act, such as the multiple references in Section 1-102. This conflict must be reconciled.

Second, since MidAmerican expects to own, rather than purchase, renewable energy facilities, it will defer response to most of this question to ComEd and Ameren, except to offer the following. Development of renewable facilities, whether by a utility or a developer, requires the ability to act quickly whenever turbines, towers, land and tax credits are available. Regulatory processes that impede the ability to act quickly can thwart renewable energy development. In the case of utility ownership of renewable facilities, expedited regulatory processes are essential in the areas of siting certification, least-cost determinations, contract approval, and assurance of cost recovery.

How should the “overall long-term benefits of renewable energy (i.e., consumer benefits of long-term fixed price contracts, environmental, economic and electric system benefits including increased fuel diversity)” be measured? How have other states assessed such benefits? When describing other state’s processes, please

include any documentation, citations to web sites, expert contact information, etc., that may be useful in evaluating this information.

MidAmerican's comments later in this document will discuss the Iowa process for assessing the cost-effectiveness of energy efficiency programs. With respect to assessing the benefits of renewable energy, Iowa wisely avoided a requirement to quantify externalities by replacing the least-cost standard with a reasonable-cost standard. While it is certainly possible to place a quantification upon externalities such as fuel diversity, avian deaths, avoided emissions, non-dispatchability, etc (note the externalities are both positive and negative for all energy resources, including renewables and energy efficiency), the exercise is generally only necessary if the state insists upon a mathematical demonstration that something is quantitatively superior to something else (regardless of the degree of accuracy of the quantification) – in other words, demonstrating “least cost.” That exercise can be avoided by replacing the least cost standard.

MidAmerican strongly supports the reasonable-cost standard. Although it is a matter of simple arithmetic to identify the least-cost approach, that arithmetic masks the fact that there are a number of critical assumptions that go into the quantification process. Moreover, the assumptions necessarily involve projections of future costs that may prove to be wildly inaccurate.

For example, whether a particular resource is least-cost may require assumptions about future fuel costs of other generation resources. Inflation assumptions impacting labor and other factors for a generation resource also may be overly optimistic or pessimistic. Operation and maintenance costs are another example of a cost factor that requires speculation over multiple decades. The value of future environmental expenditures and environmental credits also is highly speculative and progressively moving towards more national and global influences and perspectives. Even the financial creditworthiness of the seller comes into play, because financial markets tend to look at long term purchase contracts as the equivalent of debt. Thus, if the financial position of the seller deteriorates, the utility may find its own financing costs increasing. In short, a number of assumptions whose veracity cannot be known until after the fact can drive the determination as to whether one option is truly the least-cost approach.

Interstate Renewable Energy Trading

What issues should this study examine? Are there other interstate trading programs in effect? If so, how do they work? When describing other state's processes, please include any documentation, citations to web sites, expert contact information, etc., that may be useful in evaluating this information.

MidAmerican anticipates that Exelon will submit comments regarding the renewable credit trading mechanism administered by PJM. That mechanism is in operation.

MidAmerican is also aware of two other regional organizations that are exploring the creation of renewable credit trading mechanisms. One of those involves Minnesota,

Iowa, North Dakota, South Dakota, Wisconsin and Manitoba and is referred to as Midwest Renewable Energy Tracking System or M-RETS. MidAmerican has suggested to representatives of M-RETS that Illinois be contacted about participating and that the M-RETS mechanism, if pursued, be coordinated with PJM and MISO. John Pearce of the Iowa Utilities Board can be contacted about M-RETS at (515) 281-5679. MidAmerican is also aware of a western counterpart to M-RETS called WREGIS. MidAmerican does not have a contact for WREGIS.

Penalties for Noncompliance

What information should be required to demonstrate compliance with the provisions on the Plan?

MidAmerican opposes the concept of penalties because such penalties create incentives to engage in uneconomic purchases. In the case of an RPS, the incentive created is to achieve an arbitrary percentage or amount of renewables without regard to the cost to the customers.

Penalties are particularly problematic if the RPS is based on energy sales, since annual energy sales cannot be determined until after the close of the year against which compliance will be measured. The incentive in such case is to purchase excessive amounts of renewable energy to avoid any circumstance in which renewable purchases might be insufficient to satisfy the RPS. This will be particularly true if the cost of renewable energy is recoverable in rates but penalties are not.

In addition, it can be expected that utilities purchasing from developers/sellers will seek to maintain performance risk (and the associated cost of penalties for failure to perform) at the developer/seller. This is certainly reasonable, but will carry a cost.

Finally, MidAmerican recognizes that the Governor's letter contains an exclusion from penalties if developers/sellers are unable to deliver. That exclusion is fraught with the potential for costly litigation, as is the requirement that the utility develop an alternative means of satisfying the renewable goal.

While MidAmerican opposes a mandatory system and penalties, in the event that the Commission does adopt a mandatory system MidAmerican recommends that the Commission reserve the exercise of any penalty authority to egregious activities, not the mere failure in any one year to satisfy an arbitrary standard. If the utility can demonstrate a good faith effort to satisfy the standard with economically feasible resources available in the market, that should be sufficient to avoid a penalty.

ENERGY EFFICIENCY PORTFOLIO STANDARD

Energy Efficiency Procurement Requirement

Please indicate the most effective way to implement these standards and attain the stated goals.

MidAmerican suggests that the energy efficiency objectives should not be established as “standards,” but instead – as defined in the Governor’s plan – as “goals.” The primary benchmark should be the cost-effectiveness of the programs implemented.

Each utility serving portions of Illinois is in a different situation – differences in location, age of market, load growth, avoidable costs, experience running energy efficiency programs, age and efficiency (or even ownership) of existing power supply resources, etc. Therefore, it is key that any statewide implementation be flexible, allowing each utility to develop appropriate and cost-effective programs for its customers (as opposed to prescriptive statewide programs).

MidAmerican recommends that the Commission draft a set of administrative rules containing guidelines for energy efficiency so utilities are clearly advised of the process for delivering energy efficiency benefits to their customers. MidAmerican has a great deal of experience in assisting in the development and refinement of energy efficiency rules in two states and would be happy to work with the Commission and others initiate this effort. Issues that need to be addressed include:

- Expectations in the areas of planning, implementation, evaluation;
- Reporting and, if necessary, contested case proceeding requirements;
- Cost recovery procedures;
- Approaches for measuring the cost-effectiveness of energy efficiency programs, including approaches for measuring the power supply and other costs avoided through program implementation; and
- Reasonable Commission oversight of the planning and implementation process.

As the rules pertain to MidAmerican and its customers, MidAmerican should be permitted to extend its Iowa energy efficiency programs to its Illinois customers. MidAmerican’s 15 years of experience with offering energy efficiency programs to customers in the Iowa Quad-Cities provide it with knowledge about which programs are desired by customers and which programs are cost-effective. Moreover, by offering the same programs in both states, administrative costs can be reduced and advertising efficiencies can be gained. A list of the 2004 Iowa energy efficiency programs offered by MidAmerican, number of participants and associated program costs is provided as Attachment 2.

What technical issues should be addressed regarding the implementation of these standards within the time frame contemplated in the Plan?

A primary issue is the cost-effectiveness test that will be employed to evaluate utility plans and delivered results. Iowa's energy efficiency rules require programs to be evaluated using four tests that are similar to those used in many other states:

- The *societal* test, which measures impacts on society as a whole and includes a quantified estimate of impacts on externalities (such as environmental impacts);
- The *utility cost* test, which measures impacts on utility revenue requirements;
- The *participant* test, which measures impacts on customers participating in energy efficiency programs; and
- The *ratepayer impact measure* test, which measures impacts on customers that do not participate in energy efficiency programs (and also measures impacts on average rates).

If Illinois plans use more than one test, the utilities should understand how multiple tests will be balanced.

Utilities also need to understand what will happen if targets are not met and the time frame in which the measurement of target attainment will be made. Some programs may be very successful for a few years but reach saturation quickly. Others may need a few years to ramp up to full potential. Flexibility to review and rework programs is the key to success in the longer term. Because rewards and penalties tend to encourage a "cherry picking" approach, MidAmerican does not favor using them. Furthermore, will utilities be held accountable for risks that are not under their control (e.g., level of housing starts in their service territory)?

Utilities also need to understand how costs will be recovered. This is a wide-ranging area, covering the following types of issues:

- Will costs be recovered through general rates or through a special rider, assuming rider recovery could be made possible?
- Are 2006 costs recoverable since the transition period rate freeze remains in effect?
- Will costs be recovered contemporaneously or deferred for future consideration?
- Will recovery require a contested case proceeding?
- How will rewards and/or penalties, if any, be assigned?

In MidAmerican's opinion, contemporaneous recovery is the most appropriate approach for Illinois, with rapid startup of new programs and substantial uncertainty regarding participation and impacts.

Utilities also need to understand measurement and verification (M&V) requirements. Among the issues to be considered are:

- What level of M&V is prudent or cost-effective for different types of programs?
- What common assumptions can be agreed to in advance of program implementation (e.g., standardized protocols for M&V activities; standardized assumptions regarding energy efficiency measure incremental costs and

energy savings; common assumptions regarding free riders and free drivers, etc.)?

Please indicate how other states have implemented similar standards. When describing other state's processes, please include any documentation, citations to web sites, expert contact information, etc., that may be useful in evaluating this information.

Eighty-seven percent of MidAmerican's retail electric customers and seventy-eight percent of MidAmerican's retail natural gas customers are in Iowa. Iowa has had a statewide process for energy efficiency since 1990 that has been very successful. This consists of legislation, a set of rules established by the Iowa Utilities Board that prescribe the required planning process, filing requirements and technical processes. Iowa Code Section 476.6(14 and 16-18) and Iowa Administrative Code Chapter 35 are the basis for MidAmerican's Energy Efficiency Plan in Iowa. These provisions are Attachments 3 and 4 to these comments.

Competitive Procurement

How should the Commission implement this policy?

MidAmerican does not believe that the draft competitive procurement guidelines are in the best interest of its Illinois customers and recommends that the Commission not implement this policy, at least as it pertains to MidAmerican. Utilities should have the latitude to meet the energy efficiency goals through a range of approaches and not be restricted to offering programs through long-term contracts with "efficiency-service providers." MidAmerican offers the following reasons.

First, MidAmerican is uncomfortable with the idea that energy efficiency should be implemented with long-term contracts with efficiency service providers. There is no evidence that third-party providers have done a superior job of providing energy efficiency services.

Second, MidAmerican has substantial success implementing programs using a different procurement approach. In some cases, we have used third party providers (where they provide specialized expertise). In others, we have implemented the programs ourselves. However, in all cases, MidAmerican retains ultimate control and accountability for program strategy and success. When MidAmerican does use third party providers, it relies on competitive processes to ensure that customers receive the greatest benefits for the lowest costs. However, it does not rely on the type of long-term contracts for services that is envisioned in the draft portfolio standard.

Third, if MidAmerican is forced to use the procurement approach outlined in the draft portfolio standard, it would result in an Illinois management and delivery structure that differed from its Iowa structure. This would have the following negative consequences for MidAmerican's customers:

- A new set of programs, operated on the principal of third-party providers, would have to be developed. This would limit MidAmerican's ability to leverage the benefits of its 15 years of program experience in Iowa.
- Overhead required to operate Illinois programs would be significantly higher, requiring new, fixed program management resources to develop, administer, and evaluate the new programs. This would limit the ability of MidAmerican to leverage its existing program management infrastructure across all programs serving its Iowa and Illinois customers.
- Since MidAmerican operates in the overall Quad-Cities media market, advertising and other media exposure in the Quad-Cities market would be extremely confusing. The Illinois programs would only be available to Illinois customers and a separate set of Iowa programs would only be available to Iowa customers.
- MidAmerican customers in the Illinois Quad Cities are very aware of the Company's energy efficiency programs offered in the Iowa Quad Cities (right across the Mississippi River). During the past twelve years, Illinois customers have frequently asked if MidAmerican intends to offer energy efficiency programs in Illinois. If energy efficiency programs offered in the Illinois Quad Cities vary significantly from MidAmerican's programs in the Iowa Quad Cities, customers will make comparisons and question the reasons for the differences. This could lead to questions, complaints and a decline in customer satisfaction, a situation all stakeholders would like to avoid.

Fourth, even if MidAmerican were to use third party providers, it makes no sense to manage these through 10-year (or longer) contracts. These programs evolve over time, as customers needs change, as efficiency standards and equipment efficiencies change, as markets become saturated, and as new information is obtained. Also, vendor skills, staff, and capabilities change. It is highly unlikely that the price and scope for efficiency services can be predicted with substantial accuracy over a 10-year period.

Finally, why should third party vendors be isolated from their own performance risk?

How should these benefits be accounted for, including how other states have addressed similar issues? When describing other state's processes, please include any documentation, citations to web sites, expert contact information, etc., that may be useful in evaluating this information.

The benefits of energy efficiency derive from the energy and demand savings produced by the programs. These savings, in turn, can be quantified as benefits related to utility power supply requirements (which translate into revenue requirements) and, if appropriate, to other externality costs (e.g., environmental impacts).

In order to account for these benefits, the Commission will need to:

- Develop a set of monitoring and verification (M&V) procedures appropriate for measuring energy and demand savings of the programs;
- Develop a methodology for estimating utility avoided costs so that the energy and demand savings can be translated into savings in power supply requirements that would otherwise flow into utility revenue requirements;

- Develop a methodology for tracking program implementation costs, assigned by program and function, as appropriate;
- Develop a cost-effectiveness method to compare costs and benefits of the programs from appropriate perspectives; and
- Develop requirements for utilities to use in reporting this information and, if necessary, resolving any differences in contested case proceedings.

Iowa's administrative rules define the requirements that MidAmerican follows in Iowa for estimating avoided costs, tracking program costs, calculating cost-effectiveness, and reporting to the Iowa Utilities Board. While the rules themselves do not define M&V procedures, experience in Iowa has provided MidAmerican with appropriate approaches for measuring savings of its current Iowa programs.

How should the Commission measure the success of these programs?

Success should be measured by the combination of achievement of load reduction goals and cost effective programs. It is not desirable to achieve the goals if it cannot be done cost-effectively. Therefore a combination is required.